

**Supplemental Figure S1.** High spatio-temporal resolution of oscillating intranuclear Ca<sup>2+</sup> levels during NF-elicited spiking in a single *M. truncatula* root hair. The frame-by-frame imaging sequence (1 sec intervals) shows the distribution and intensities of YFP:CFP ratio changes (pseudo-colored in green) for eight consecutive nuclear Ca<sup>2+</sup> spikes. The accompanying plot shows averaged changes in the YFP:CFP ratio plotted over the entire 5.5 min period. The composite image of the elongating root hair treated with 10<sup>-9</sup> M NF (bottom right) shows both the bright-field and the corresponding fluorescence image (pseudo-colored in yellow) of the nuclear-localized NupYC2.1. Dashed lines indicate the position of the nucleus and arrows the position of the non-labeled nucleolus. In the mounted image series only the 20 sec time frame covering each spike is shown. Bars = 15 µm.